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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,424	04/22/2005	Kensaku Fujii	0080-0234PUS1	3734

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EXAMINER	
MAKI, STEVEN D	
ART UNIT	**PAPER NUMBER**
1733	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/10/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/10/2007.

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mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/532,424	FUJII ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-11 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 042205.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Great Britain 975

3) **Claims 1, 2, 5 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Great Britain 975 (GB 546975).**

Great Britain 975 discloses a pneumatic tire with a tread comprising circumferential grooves and ribs wherein holes are formed in the ribs. The holes may have any suitable shape such as circular, rectangular, square, diamond, triangular or polygonal. Great Britain 975 teaches that the holes may be uniform for the whole of their depth or may have a rounded base. Hence, Great Britain 975 is considered to teach a hole having an upper portion with a square shape and lower portion with a

rounded base. Great Britain 975 teaches using the holes to increase flexibility and improve cooling.

The claimed tire is anticipated by Great Britain 975. In claim 1, the description of "rotation timing indication" before "hole" relates to intended use and fails to require hole structure not shown by Great Britain 975.

The claimed method is also anticipated by Great Britain 875 because during use of the tire, the tread inherently wears such that the contour of the hole changes from square to rounded. It is emphasized that claim 11 fails to require a positive step of changing the position of the tire on a vehicle.

French

4) **Claims 1, 2 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by French (US Re 30518).**

French discloses a pneumatic tire with a tread comprising a hollow wear indicator whose contour changes from a first pattern to a second pattern to indicate wear. See figures 2-4.

The claimed tire is anticipated by French. In claim 1, the description of "rotation timing indication" before "hole" relates to intended use and fails to require hole structure not shown by French.

The claimed method is also anticipated by French because during use of the tire, the tread wears such that the contour of "the hole" changes as shown in figures 3 and 4. It is emphasized that claim 11 fails to require a positive step of changing the position of the tire on a vehicle.

Shimura

5) **Claim 11 is rejected under 35 U.S.C. 102(a),(b),(e) as being anticipated by Shimura (US 2002/0036039).**

Shimura discloses a pneumatic tire having a tread comprising a mark portion in the form of a "hole" wherein the surface shape of the mark portion changes a surface shape as wear progresses. In the embodiment of figures 7a-7d the shape of the hole changes from a square to a rectangle. In the embodiment of figures 8b-8d, the shape of the hole changes from a circle to an ellipse. Shimura teaches that the tread wear amount is easily discernable by only checking a change of the surface shape of the mark portion.

The claimed tire is anticipated by Shimura. In claim 1, the description of "rotation timing indication" before "hole" relates to intended use and fails to require hole structure not shown by Shimura.

The claimed method is also anticipated by Shimura because during use of the tire, the tread wears such that the contour of the hole changes from square to rectangle or from circle to ellipse. It is emphasized that claim 11 fails to require a positive step of changing the position of the tire on a vehicle. Also, claim 11 fails to require a multi-step hole.

Soviet Union

6) **Claims 1-4, 7 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Soviet Union (SU 408333).**

Soviet Union discloses a pneumatic tire having a tread comprising a wear indicator in the form of stepped pyramid for permitting tire wear to be assessed. Soviet Union teaches that one of the projections can have the form of the stepped pyramid. Alternatively, Soviet Union teaches an opening in one of the projections may have the shape of a stepped pyramid. In figure 4, each step has a square shape. In figure 5, each step has a circular shape. In figure 6, the first step has a circular shape whereas the remaining steps have a polygonal shape.

The claimed tire is anticipated by Soviet Union. The claimed hole reads on the opening having the shape shown in figure 6. In claim 1, the description of "rotation timing indication" before "hole" relates to intended use and fails to require hole structure not shown by Soviet Union.

The claimed method is also anticipated by Soviet Union because during use of the tire, the tread wears such that the contour of the hole changes from a circle shape to a polygon shape (figure 6). It is emphasized that claim 11 fails to require a positive step of changing the position of the tire on a vehicle.

Japan 608

7) **Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 608 (JP 55-110608) in view of Soviet Union, Shimura and French and optionally Slingluff (US 5,980,668).**

Japan 608 discloses a tire with a tread comprising a stepped hole 17 for indicating wear. Japan 608 describes using a tetragonal shape for the stepped hole.

Japan 608 does not appear to recite using a different shapes for the upper and lower portions of the stepped hole.

Soviet Union discloses a pneumatic tire having a tread comprising a wear indicator in the form of stepped pyramid for permitting tire wear to be assessed. Soviet Union teaches that one of the projections can have the form of the stepped pyramid. Alternatively, Soviet Union teaches an opening in one of the projections may have the shape of a stepped pyramid. In figure 4, each step has a square shape. In figure 5, each step has a circular shape. In figure 6, the first step has a circular shape whereas the remaining steps have a polygonal shape.

Shimura discloses a pneumatic tire having a tread comprising a mark portion in the form of a "hole" wherein the surface shape of the mark portion changes a surface shape as wear progresses. In the embodiment of figures 7a-7d the shape of the hole changes from a square to a rectangle. In the embodiment of figures 8b-8d, the shape of the hole changes from a circle to an ellipse. Shimura teaches that the tread wear amount is easily discernable by only checking a change of the surface shape of the mark portion.

French discloses a pneumatic tire with a tread comprising a hollow wear indicator whose contour changes from a first pattern to a second pattern to indicate wear. See figures 2-4.

As to claims 1-11, it would have been obvious to one of ordinary skill in the art to provide the upper and lower portions of Japan 608's wear indicating hole with different shapes such as circle, square, ellipse, etc. since Soviet Union, Shimura and French

suggest facilitating visual monitoring of a wear indicator in a tire tread by providing the wear indicator such that the shape of the wear indicator changes with wear. In claim 1, the description of "rotation timing indication" before "hole" relates to intended use and fails to require hole structure not suggested by the above applied prior art. Claim 11 fails to require a positive step of changing the position of the tire on a vehicle. In any event: it would have been obvious to use a stepped hole to indicate timing for rotation of a tire since (1) Japan 608 teaches using a stepped hole to indicate wear of tire tread and (2) Slingluff suggests using holes of different depths to indicate when the tire has worn to a level where it is due for rotation to another wheel position on a vehicle. As to claims 2-8, Soviet Union teaches circle shape and polygon shape (figure 6), Japan 608 teaches a tetragon shape, and Shimura teaches a circle shape, square shape and ellipse shape. Shimura also teaches one shape being inscribed in another shape (figures 8b-8d) in order to maximize the size of the lower shape. With respect to inscribing, also note the location of the circle within the polygon in figure 6 of Soviet Union. The particular combination of claimed shapes (e.g. square and circle) would have been obvious in view of (1) the different shapes disclosed by the applied prior art and (2) the applied prior art's teaching to have wear indicating "hole" change shape during wear. As to claim 9, Shimura suggests using two holes. As to claims 9 and 10, it would have been obvious to use six pairs of holes arranged at intervals in a circumferential direction of the tire in view of Slingluff's suggestion to locate groups of rotation timing indicating holes at uniform intervals around the circumference of the tire.

Remarks

8) The references JP 96310/1990 and JP 59-25684 were crossed off the PTO 1449 filed 4-22-05 because a copy of these references is not readily available to the examiner. Applicant is requested to provide a copy of JP 96310/1990 and JP 59-25684.

9) No claim is allowed.

10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven D. Maki
January 2, 2007

Steven D. Maki 1-4-07
STEVEN D. MAKI
PRIMARY EXAMINER